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HISTORY, 1900-1925

Canadian Seed Growers' Association

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**CANADIAN SEED
GROWERS' ASSOCIATION
INCORPORATED**

**HISTORY
1900 - 1925**

**OTTAWA, CANADA
JUNE, 1926**

**The Canadian
Seed Growers' Association
Incorporated**



**HISTORY
1900 - 1925**

Edited by the Secretary-Treasurer

Ottawa, Canada

June, 1926

EDITOR'S NOTES

1. *For generous assistance given in the compilation of this history, the editor tenders his acknowledgements and thanks to the Association's first President, Dr. Jas. W. Robertson, C.M.G., LL.D., the President, Dr. C. A. Zavitz, D.Sc., the past President and first Secretary, Mr. Geo. H. Clark, and the former Secretary, Mr. L. H. Newman; also to Mr. T. F. Astle, of the Publications Branch, Department of Agriculture, Ottawa, and others who assisted by furnishing valuable information and suggestions.*

2. *The portraits appearing throughout this history are of men who have played a prominent part in the foundation and development of the Association, either by their consistent practical or scientific work over a number of years or by their contributions in an Executive capacity.*

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1925-26

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117 Vittoria St., Ottawa, Ont.

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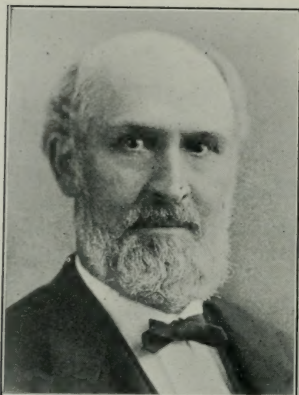
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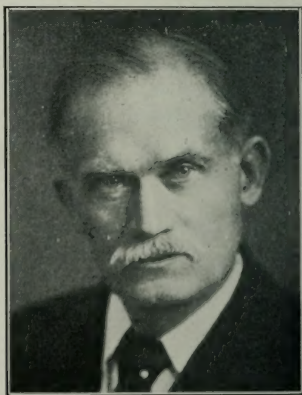
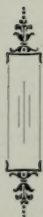
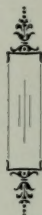
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The Founders



THE LATE SIR WM. C. MACDONALD
Montreal, P.Q.

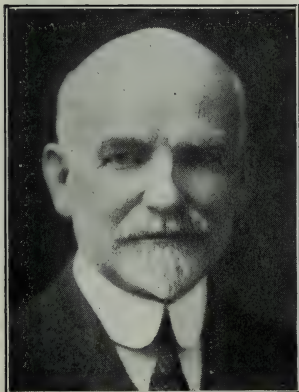


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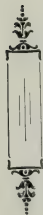
The Presidents—past and present



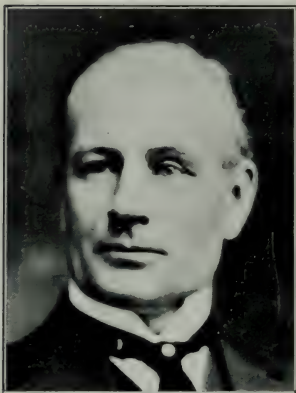
GEO. H. CLARK
*Seed Commissioner,
Ottawa, Ont.*



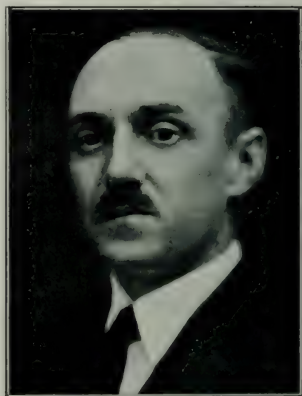
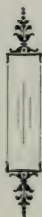
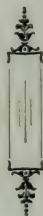
DR. C. A. ZAVITZ
*Ont. Agricultural College,
Guelph, Ont.*



The Secretaries—past and present



L. H. NEWMAN
*Dominion Cerealist,
Central Experimental Farm
Ottawa, Ont.*



PETER STEWART
*Can. Seed Growers' Ass'n.,
114 Vittoria St.,
Ottawa, Ont.*

THE Canadian Seed Growers' Association Incorporated, has just completed a quarter century of service to agriculture in Canada. Working in coordination with Departments of Agriculture—Federal and Provincial, Colleges of Agriculture, and other agencies, both public and private, it has been an important factor in our national prosperity. There is no phase of farming of such fundamental importance as the production and general use of good seed and none in which slight differences produce greater ultimate results. In its work for improvement of the seed supply of the country, the Association has established high standards and presented high ideals. By maintaining these it has won the confidence of seed consumers and dealers not only at home, but even unto the ends of the earth. The present article is written to record the more important features of these twenty-five years of effort and achievement.

THE ORIGIN OF THE ASSOCIATION

The Canadian Seed Growers' Association owes its origin and early development to the vision and guidance of Dr. Jas. W. Robertson, known today throughout Canada as Chief Commissioner of the Boy Scouts Association and Chairman of the Central Council and Executive Committee of the Canadian Red Cross Society. From 1895 he was Commissioner of Agriculture and Dairying in the Dominion Department of Agriculture. He had studied the seed improvement systems of Europe, and had come to the conclusion that some better plan and method should be introduced in Canada. With characteristic energy he set about to find a means of realizing his purpose. The following is quoted from Dr. Robertson's address, as president, in the tenth annual report of the Association:

"In 1899 I put aside \$100 only, of pocket money, to encourage boys and girls on their fathers' farms to pick the best heads out of the standing crops of wheat and oats. These were to be sent to Ottawa; were to be carried free through the mails, because all correspondence for the Commissioner of Agriculture's office came with that privilege. The \$100 was offered in



T. J. HARRISON
*Manitoba Agricultural
 College, Winnipeg, Man.*

prizes to the boys and girls who collected the 100 best heads—best in point of size and number of kernels and weight of grain. There was a wonderful response. I remember the bags containing those selected heads coming in almost like a deluge on us. And all that the boys and girls got out of it was \$100 in prizes, plus much enjoyable education, enlightening enthusiasm and intelligent encouragement to go on in this new way of growing better crops through better seed. That was the beginning.

One of the rich and public-spirited men of Canada was told that this was a means whereby a sum of money could be invested with the certainty of large returns to the farmers. It was the kind of high finance that enriched the people and brought no return to the original investor, except the satisfaction of doing good and good only with his money. Therein lies the romance. I recall the circumstance. A member of this Association sat in his library toasting his toes three nights before Christmas. The baby was tumbling around on the rug, and other children of Canada were in mind. Then the romance began to evolve. The small sum of \$100 had been the means through which youthful enthusiasm had been directed into wakeful interest about seeds and crops. Probably if better prizes, and more of them, could be offered, more boys and girls might be beguiled into this fine task of gathering specimens of life at its best in the form of selected heads of wheat and oats out of the crops of the farm. Probably that life might be reproduced in a better way on the fields of the same farms next year, and in a continuous process afterwards. A little figuring made it apparent that about \$10,000 would beguile enough boys and girls into that plan, into that experience to affect the whole of Canada. One hundred dollars was to be the



HON. W. R. MOTHERWELL
*Minister of Agriculture,
 Ottawa, Ont.*



E. A. HOWES

*Dean of Faculty of Agriculture,
University of Alberta,
Edmonton, Alta.*

first prize in each province, at the end of three years, to the boy or girl who did the best work with wheat, that is, who got the best returns out of three years' effort on the home farm. A similar prize in each province was to go to the one who did the best work with oats. And so, that too many would not fall out by the way, the boy or girl who did the best work in each intervening year, in each province, with wheat and oats respectively, was to get \$25 as a first prize. The second prizes were \$75 and \$20 respectively, in each group and province, and so on, down. These prizes rolled up the amount to \$10,000, and that looked an enormously large sum of money to invest in merely trying to lead boys and girls into a larger experience and understanding of life and happiness through intelligent effort in selecting seed-grain on the farms where they lived. Well, Sir William Macdonald, of Montreal, did not think it would be wasting money, and he put up the \$10,000. I am confident he enjoyed his part of the romance."

THE MACDONALD-ROBERTSON COMPETITION

In January 1900, an announcement was made in the press outlining the rules of the competition. The object of the contest was to stimulate an interest in the selection and production of high class seed by providing visible demonstrations as to the practical advantages which accrue from the use of such seed. The competition was confined to wheat and oats and was to be continued over a period of three years. Each boy or girl was required to operate a plot of wheat or oats one-quarter of an acre in extent. They were to pick from the growing crop on that plot the largest heads of the most vigorous plants in sufficient quantity to sow a quarter acre "hand-selected seed plot" the following year, and the process



F. J. DASH

Broadview, Sask.



ROBERT SUMMERBY,
Macdonald College,
P.Q.

was to be repeated to the third year. Prizes were to be given to the boys and girls who achieved the best results in each province.

Mr. Geo. H. Clark, now Dominion Seed Commissioner, was appointed secretary of the competition, and its supervision was left almost entirely in his hands. Under his management the competition, as a whole, was a marked success. About 1500 competitors participated and no fewer than 450 carried on the work satisfactorily for the three years. The records sent in by the boys and girls from their plots of the first year were compared with the records sent in the third year by the same boys and girls on the same farms. They stuck to the seed they had begun with, selecting the best plants for seed the following year. Observation, study and experience, developed their ability, and they applied improved methods of management. On the average, the competitors got 40% more crop on their wheat plots the third year than they got the first year of the competition. This is the record of over 450 competitors. Something worth while, was it not? On the oat plots the boys and girls got 36% more crop to the acre the third year than the year they began. The weight of the grains from one hundred heads, from the same boys on the same farms, was, in the case of wheat, 28% more in the third year than in the first year. In the case of oats the increase was 27%.

THE MACDONALD-ROBERTSON SEED GROWERS' ASSOCIATION

The work of the boys and girls taking part in the Macdonald-Robertson seed selecting and growing competition provided tangible evidence of great possibilities for the improvement of grain crops by systematic selection of seed. The results obtained were



S. J. MOORE
Dominion Seed Branch,
Truro, N.S.



DR. FRANK T. SHUTT,
M.A., D.Sc., F.I.C.
*Central Experimental
Farm, Ottawa, Ont.*

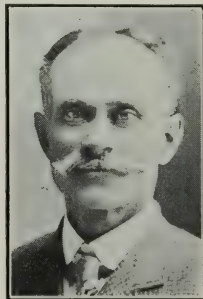
so significant that it was decided to form an association in order to give the selection of seed by farmers official recognition by introducing a system of registration of the seed produced. As a result of this decision a letter was sent, in November 1902, to the competitors who had stuck to the work throughout the competition, inviting them or their parents to form themselves into an association of seed growers and to make seed growing a special and permanent part of their farming operations. In March 1903 a bulletin was issued announcing the formation of the Macdonald-Robertson Seed Growers' Association. The bulletin outlined the objects and rules of the new association and announced the establishment of a system of seed registration.

THE CANADIAN SEED GROWERS' ASSOCIATION GETS ITS NAME

A meeting of the Macdonald-Robertson Seed Growers' Association was called for June 15, 1904. One of the first acts of the meeting was to give the associated seed growers a new name—the Canadian Seed Growers' Association. Dr. Jas. W. Robertson was appointed its first president, a position he retained for twenty years. Dr. C. A. Zavitz was the first vice-president of the Association and Mr. George H. Clark, Chief of the Seed Division, was the first secretary. A board of directors was also appointed.

OBJECT OF THE ASSOCIATION

The object of the Association thus inaugurated was "to encourage the general use of improved seed with a view to increasing the yield and quality of the field crops of Canada". This object was to be attained by making regulations respecting



NICK TAITINGER
Claresholm, Alta.



W. C. McKILLICAN .
*Dean of Faculty of Agri.,
 University of Manitoba,
 Winnipeg, Man.*

the growing, selecting and preserving of the seeds of various crops, keeping records of the seeds produced by members; fixing standards of eligibility for registration and issuing certificates of registration to members by which hand-selected seed or its progeny would be known from other seed. Membership in the Association was open to any resident of Canada who chose to make seed growing a special branch of his farming operations and who agreed to conform to the by-laws and regulations of the Association.

Three distinct classes of seed for registration were established:

- (a) Hand-selected registered seed,
- (b) Improved registered seed,
- (c) General crop registered seed.

It was the duty of each member to keep in writing a record of each year's operations, including sufficient data to enable the record book of the Association to show the history of each kind and variety of grain grown by the member. These records showed the amount of hand-selected seed collected each year, the size and yield of the "hand-selected seed plots", and of the "improved seed plots" and gave information regarding the kind of soil on which the seed was grown, the crop which preceded on each of the seed plots, and notes regarding the conditions of the crops of the seed plots in respect of insect and fungus pests.

Each member was obliged to operate a "hand-selected seed plot" containing not less than a quarter acre of land. He was urged to get the best obtainable variety and strain of seed and to increase its supply in a high state of purity and productiveness by maintaining a new plot each year. The fields of grain grown from the seed from these plots were inspected during the growing season



J. O. DUKE
Ruthven, Ont.



E. D. EDDY
Toronto, Ont.

at a time when the purity of the crop and its freedom from disease were most readily determined. Certificates of registration were issued giving the name of the producer, the kind of seed the number of years the seed had been hand-selected, and the class under which it was registered.

THE FIRST YEARS OF THE ASSOCIATION

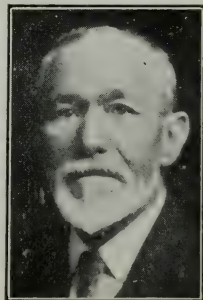
During the first few years very little change was made in the methods of operation, and the results were very encouraging. Increasing popularity of the Association among farmers was shown in the number of applications for membership. The farmers who joined the Association were among the brightest and most progressive in the country. The definite work they were called upon to do was of great educational value, and the fact that their work was being inspected and recorded by competent officials was a great incentive to efficiency.

Many evidences of the value of the efforts of the Association were contained in special reports received from its members. They told of definite improvement in the size, plumpness and quality of kernels; of selected strains that matured earlier than others; of strains that matured with exceptional evenness; of strains becoming better adapted to local conditions; and perhaps most important of all, of the discovery of strains with increased resistance to smut and rust.

IDEAS AND ABILITIES DEVELOPED

The following three paragraphs are taken from the reports of the president's addresses to the annual meetings in 1912, 1913 and 1914,—

"This association was formed for the purpose of bringing about an improvement in the crops of Canada by the general use



LATE W. L. DIXON
Varney, Ont.



GEO. BOYCE
Merrivale, Ont.

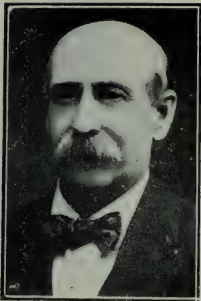
of good seed; and good seed, selected in such a way as not merely to leave the crops larger and better, but to leave the farmer himself more intelligent and more capable. It would be a bit difficult to devise any scheme that had larger or more important objects than these two: to improve and to increase the field crops—the wherewithal which old Mother Earth gives us, her children, for the maintenance of life, health and happiness—and to make the abilities and the opportunities of all the people, the grown and the young, more satisfying than they have been.”

“Watching the growth of the Association and its action these nine years, and seeing the play and influence of the Association on Departments of Governments and the influence of the Departments back on the Association, also the influence of the Association on the farmers and the influence of the farmers back on the Association, I can see that agriculture has gained immensely. The Association numerically has not grown large; but in spirit and in real quality of life it has grown much. You know a man is never guageable by the weight of his body or his size. He is really to be valued by the extent and quality of his service and influence. I have known a million-power man, not because he had great wealth but because a million brains responded to his thinking, a million hearts beat steadier and stronger in response to his touch. That was the size of the man. A million-power man. I have known a large man with a large number of agreeable friends close by who was not a ten-candle-power man in the power he exercised in uplift and outlook. This is a ‘million-power’ Association, although it has only a small membership.

“What is the result of this Association’s



HORACE A. CRAIG
*Deputy Minister of Agri.,
Edmonton, Alta.*



DR. SEAGER WHEELER, LL.D.
Rosthern, Sask.

work on the seed-grain situation in Canada today, as compared with ten or twelve years ago? Many thousands more men now recognize that seed does not merely mean grain, but that seed means a contained life. It means the quality and power of the contained life which gives the plant, rising from the seed, commensurate power to overcome obstacles—power to gather substance out of the atmosphere, to capture and collect energy from the sunshine, and to suck up nutriment from the earth, garnering from air, sun and soil, strength and beauty and wealth for us. That is seed grain—grain with capacity to perform that function for us. It used to be just anything in the shape of grain that would grow. The situation is now better understood and better managed, because of the diffusion of information and the development of intelligence by means of all this educational work.”

“It is not enough in farming or in anything else, to add to the sum total of material things. That is worth while; but it is far more worth while to add to the sum total of the thinking power, the performing power of the people. That is what the Canadian Seed Growers’ Association does on the farms. This

power finds its best expression in so managing rural life that it will continuously enrich and exalt and extend the economic, intellectual and moral power of the people. The man who has studied seed and got an insight into the meanings of life will respond, will behave in all relationships in a wiser and nobler way. So we have great advantages besides the material increase in bigger and better crops; the thinking power of the farmers having been greatly improved and their managing power having been immensely augmented.”



L. PH. ROY
*Dept. of Agriculture,
Quebec, P.Q.*



MAJ. H. G. L. STRANGE
Fenn, Alta.

SCOPE OF SERVICE WIDENS OUT

At first, wheat and oats were the main crops with which the members were working, but in 1909 a large number were taking part in the selection of other kinds of seed, especially barley, corn and potatoes. Wheat being the staple grain crop of the country, and the great regulator of public prosperity, naturally received the most attention. The high reputation which Canadian wheat holds in the markets of the world demands constant care in safeguarding the quality of this cereal. The demand for high class seed oats was increasing rapidly, causing special consideration to be given to this crop. It gave great opportunities for discrimination and careful multiplication of selected types. Barley was also receiving increasing attention. The work of corn improvement was almost entirely limited to Ontario. The necessity for high class seed of a few pure bred strains of corn was clearly recognized and the attention of the members was directed to increasing the yielding capacity, purity, uniformity, and adaption to local conditions of these strains. A start was made in conducting systematic work with potatoes, an incentive being the necessity of replacing run-out varieties with more desirable types, especially in Ontario.

Meanwhile the educational campaign of the Association was being carried on with vigour. Addresses by officials of the Association and of the Seed Branch were delivered in all parts of the Dominion pointing out to farmers the benefits to be derived from the use of good seed. A system of holding seed fairs, instituted by the Seed Branch, was also of great assistance to the Association. These fairs not only provided a market for registered and specially selected seed but also proved to be an excellent means of stimulating the interest of farmers



NARCISSE SAVOIE
*Dept. of Agriculture,
Quebec, P.Q.*



L. S. KLINCK

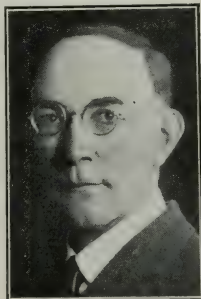
*President University of
B.C., Vancouver, B.C.*

in producing better seed. Prizes for standing crops were offered and the success of its members in winning these prizes drew attention to the Association.

During the period covered above, 1904-1909, only one change was made in the personnel of the executive officers of the Association. Up to 1905 the work of the Association had been carried on as a part of the work of the Seed Branch of the Department of Agriculture, but at the second annual meeting in June 1905, the constitution of the Association was revised. It became a purely voluntary institution, although assisted financially by the Government, and operating in close touch with the Department of Agriculture. One of the results of this change was a ruling of the Minister of Agriculture, that it was not desirable that officials of his Department should hold office in the Association. In view of this ruling Mr. George H. Clark, Seed Commissioner, retired from the position of secretary. A resolution of thanks of the Association was tendered Mr. Clark "for the excellent work he has done in connection with the organization of the Canadian Seed Growers' Association and the carrying on of its work during the year". Mr. Leonard H. Newman, B.S.A., was then appointed secretary, and held the position until he was appointed Dominion Cerealists in 1923.

NEW IDEAS IN SEED IMPROVEMENT

Although the results of the work of the Association up to 1909 had been very satisfactory it was beginning to be seen that some changes in its methods of operation were necessary. As a result of the experience of the Association, and of the work of the Experimental Farms, especially that carried on by Dr. Chas E. Saunders,



ARTHUR C B. GRENVILLE
Morrin, Alta.



JULES SIMARD
*Dom. Seed Branch,
Quebec, P.Q.*

Dominion Cerealist, as well as of the study of systems in vogue in Europe, new ideas in seed selection were coming to the front. The officials of the Association and of the Department of Agriculture had modified their views as to the extent to which plant improvement could be brought about by mass selection as practised by members of the Association. Experience derived from successive years of effort tended to show that although a number of striking successes had been achieved under the system of mass selection, many of those who took up the work of seed selection under the guidance

of the Association were unable to obtain further perceptible improvement in their crops after two or three years of work.

At the annual meeting of the Association in 1910, Mr. George H. Clark presented a report on seed selection as practiced in Europe, in which he said that from observations he had made in following the work of the Association, he had gradually been led to the opinion that the success of those engaged in seed selection depended to a much greater extent than had been generally believed on the care exercised in selecting for foundation stock pure lines of the best possible seed. If the first selections were heads of plants of outstanding merit the process of multiplication brought about success, but if the first selections were inferior, the results were often discouraging.

The following quotation from Mr. Clark's paper is of special interest:

"The system of mass selection now followed with cereal grains by members of the Canadian Seed Growers' Association has, until quite recently, been adhered to by German seed growers. During my visit to them last summer, I took occasion to outline the methods employed by the members of this Association to different men whom I met



JOHN A. MOONEY
Regina, Sask.



JAMES MURRAY
Medicine Hat, Alta.

and who were engaged in the work of plant improvement. They all seemed to be thoroughly familiar with the plan and the principles it embodies, and several whom I met are continuing with that plan in modified form. Nearly all of them have been influenced by, and are now adopting or incorporating into their methods, the principle that has been so effectively applied in the improvement of crops by Prof Hjalmar Nilsson at Svalof in Sweden, whose methods of work I desire to present in this paper."

This principle applied by Professor Nilsson and his co-workers consisted in isolating individual plants of exceptional merit selected from known varieties of proven value. Dr. Chas. Saunders commenting on Mr. Clark's paper, said, "I am glad that the matter of selection of single plants is receiving more attention, because I think it is the best method, and I hope the Association will look more favourably upon it."

In order to obtain first-hand information as to the principles and methods of seed improvement followed in Europe, the secretary of the Association, Mr. L. H. Newman, was in 1910 granted eight months' leave of absence to study in Sweden. At the annual meeting in 1911, Mr. Newman presented a report containing the results of his observations. This report was of unusual importance because the principles outlined in the writer's conclusions became gradually embodied in the system of the Association.

AMENDMENTS TO THE REGULATIONS

In considering the changes to be made in the methods of operation the commercial side of seed growing was not forgotten. It was the aim of the Association to make the business of seed growing as profitable as possible to its members, and to put the handling of registered seed on a better commercial basis.



G. H. HUTTON
*Dept. Natural Resources
C.P.R., Calgary, Alta.*



LATE THOS. WAUGH
North Bedeque, P.E.I.

As a result of these considerations, several important amendments to the regulations of the Association were adopted at the annual meeting of 1912. These amendments consisted in part in changes in the definitions of seed standards, and in the qualifications for registration. The following being the most important:

"By the term Elite Stock Seed is meant:

(a) the general product of a hand selected seed plot or other area originating from hand selected seed of at least three years satisfactory selection and which is considered by the executive to be worthy

of distribution, or,

(b) A pure stock of seed originating from a single plant, the progeny of which has been proven in plot or field tests (and by analysis if necessary) to the satisfaction of the executive to be worthy of distribution. This seed must have been propagated exclusively by the originator or under his supervision."

(c) By the term Registered Seed is meant the progeny of Elite Stock Seed up to and including the third generation descended therefrom when such progeny has been duly accepted for registration."

"It is further recommended that all seed for which certificates of registration are applied, be inspected when in the sacks by an expert who, upon finding the seed to comply with all requirements, shall immediately seal the sacks with a metallic seal bearing the name of the Association. It is also recommended that suitable tags be attached to all packages or sacks sealed and which bear the name of the variety, the quantity in each sack to which they are attached, the number of certificates, the grower's certificate, and finally the signature of the inspector. These tags take the place of individual certificates such as have been issued in the past."



R. O. WYLER
Luseland, Sask.



B. R. COHOE
South Woodslee, Ont.

During the first ten years of the development of the Association the inspection of growing seed crops as well as the inspection and sealing in the sack of the threshed and cleaned seed grown by members and prospective members of the Association, was done by the district officers of the Seed Branch. This resulted at times in some confusion and the Seed Branch inspectors were not always available when their services were required by the Association. It was therefore decided in 1914 that the Association would gradually take over this inspection service and that the work should be

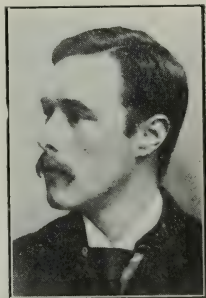
done under its direct supervision. A certain schedule of inspection fees was adopted at the same time in order to cover the cost.

RAPID PROGRESS

After the introduction of these new regulations the Association continued to make rapid progress both in the number of its membership, and in the work it accomplished. Taking into consideration the period from 1911 to the time when war conditions were beginning to have their effect on the Association the annual reports show that the numbers of members in good standing in the year 1911-12 was 163, and the total number affiliated with the Association was 395. In the year 1914-15 these numbers were increased to 285 and 1,285, respectively. There was also a steady and substantial increase in the acreage devoted to the production of registered seed. In 1910, 4,576 bushels of registered and improved seed were produced from 236 acres, and in 1915, 85,453 bushels were produced on 3,533 acres.

MARQUIS WHEAT

During the period under review the work of the Association received a great impetus and wide advertisement as a result of the discovery of Marquis Wheat by



R. H. CARTER
Muscow, Sask.



JOHN W. LUCAS
Calgary, Alta.

Dr. Chas. E. Saunders, Dominion Cerealists. The credit for the discovery of this marvelous and world famous variety of wheat goes properly to the Central Experimental Farm but much of its earlier renown and rapid success was due to the splendid work of certain members of the Canadian Seed Growers' Association. In 1911 Mr. Seager Wheeler of Rosthern, Sask., a member of the Association, at the Madison Garden Exhibition, New York, with an exhibit of the Marquis variety won the thousand dollar prize for the best hundred pounds of wheat grown in North America. This was the first of a large number of splendid victories won by members of the Association at National and International Exhibitions. They show the high place which the Association holds in the general scheme of field crop improvement.

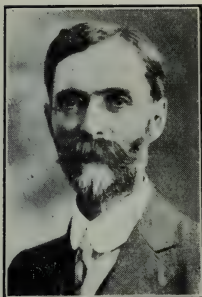
CO-OPERATION OF PROVINCES

In order to widen the scope of the Association's work, in 1914 the policy of encouraging initiative action and responsibility by the provinces was adopted. It was recognized that the provinces have special facilities for promoting and supervising the work of individual seed growers. Consequently it was decided that each province should assume full responsibility for the initiation and general supervision of the work of growing registered seed within its borders. The work of keeping records, issuing certificates of registration, publishing seed catalogues, and conducting the final inspection of registered seed was still kept in the control of the headquarter's staff of the Association at Ottawa.

The provinces took up the work allotted to them with enthusiasm, and began holding conventions of members at which the practical work of seed growing and marketing was discussed. They conducted the field inspection work very satisfactorily. In fact



H. N. FISHER
Sedalia, Alta.



CHAS. E. SAUNDERS
Ph.D., LL.D., D.Sc.
Ottawa, Ont.

the new policy proved successful and resulted in a large increase in the membership of the Association, and in an increased appreciation of the value of good seed.

SEED CENTRES

Simultaneously with the enlistment of the assistance of the provinces a system of "seed centres" was inaugurated. These "seed centres" consisted of groups of farmers in districts known to be specially suited to the production of certain kinds of seed. Regulations governing the activities of the centres were drawn up by the Association

and a large number of them were organized. Considerable difficulty, however, was encountered in carrying out the scheme on account of the tendency on the part of the farmer to work independently, and the success expected of it was never quite realized.

THE WAR YEARS

By 1915, war conditions began to have their effect and brought to the Association increased opportunities and greater responsibilities. The value of the work of the Association became more apparent than ever before and the number of appeals for its assistance were more numerous and urgent. The crop season of 1916 was unfavourable in many parts of the Dominion and resulted in a shortage of good seed, and this fact coupled with the vital national importance of producing as large crops as possible in 1917 brought a wide-spread demand for the best available seed. The Association rose to the occasion and went a great way toward filling the exceptional demand although a considerable number of its members had enlisted and there was a scarcity of farm labour. The ranks of the Association were well maintained and there was still a steady increase in membership.



M. P. TULLIS
Dept. of Agriculture
Regina, Sask.

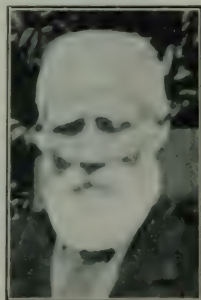


J. C. MITCHELL
Dahinda, Sask.

FURTHER CHANGES IN THE REGULATIONS

The urgent necessity of maintaining the country's supply of high class seed during the stress of war brought about a thorough discussion of the whole problem at the fourteenth annual meeting in 1918. It was urged during the discussion that in face of the scarcity of labour and the difficulty members were having in conducting "hand-selected seed plots," if the supply of good seed was going to be anywhere sufficient to meet the demand some changes would have to be made in the regulations concerning registered seed. Previously only those growers who were producing "Elite Stock" seed and were therefore members of the Association were eligible to receive certificates of registration for their crops. A crop produced from first or second generation registered seed, sold by a member to a grower who was not a member, was not inspected and registered by the Association. It was clear that if such seed could be recognized as eligible for registration after proper field and laboratory inspection had been made, not only would growers be encouraged greatly but the quantity of seed suitable for certification would be increased enormously. There would also be an increased incentive to farmers to enter the Field Crop Competitions, as they would stand to realize two distinct gains: the possibility of winning prizes, and the possibility of obtaining a substantial premium over market prices on selling their seed.

Consequently at the 1918 meeting, the Association adopted a resolution: "that progeny of Elite Stock Seed, first generation Registered Seed and second generation Registered Seed be recognized as registered seed providing the field and sack inspections have been properly made and the seed itself be up to the standard."



DONALD INNES
Tobique River, N.B.



R. D. KIRKHAM
Box 43, Salcoats, Sask.

By adopting this principle the Association greatly widened the scope of its operations and added materially to the responsibilities of the Secretary and its staff of inspectors in maintaining the high standard of quality that had always been firmly exacted.

Concurrently with the adoption of this new ruling, the regulations of the Association defining 'pure seed' were modified as follows:

"Seed which is pure as to variety means seed which on field, laboratory and sack or bin examination has revealed practically no evidence of the presence of any aberrant type or types."

"Seed which is free from seeds of other cultivated plants means seed which on laboratory and sack or bin examination prior to sale has revealed practically no evidence of the presence of seeds of other cultivated plants."

Notwithstanding these efforts to enlarge the scope of the Association the demand for registered seed continued to exceed the supply, and at the annual meeting in 1919, at the suggestion of Mr. George H. Clark, Seed Commissioner, the regulations were amended so as to permit seed to be registered indefinitely so long as the required standard of purity, vitality and quality was maintained. Previous to this, registration had ceased after the third generation from "Elite Stock Seed." This arrangement proved a success and resulted in a considerable increase in the available quantity of good seed.

INCORPORATION

On June 20th, 1920, the Canadian Seed Growers' Association was incorporated under the Companies Act' as a recognized business concern. The charter members were Dr. Jas. W. Robertson, Dr. C. A. Zavitz, of the Ontario Agricultural College, Professor T. J. Harrison of the Manitoba



MAHLON WATSON
Provost, Alta.



DR. M. CUMMING, LL.D.
Truro, N.S.

Agricultural College, Professor Robert Summerby of Macdonald College, and Mr. Narcisse Savoie, Secretary of the Department of Agriculture of the Province of Quebec.

CHANGES IN PERSONNEL

In 1921 Dr. Jas. W. Robertson resigned from the presidency of the Association after holding the position continuously since the organization was established. Mr. George H. Clark, Seed Commissioner, was chosen to succeed him. Two years later Mr. L. H. Newman, who had been secretary of the

Association since 1905 was appointed Dominion Cerealists as successor to Dr. C. E. Saunders. Mr. Peter Stewart, B.S.A., was then made secretary of the Association, which position he still retains.

REORGANIZATION

The rapid increase of the work of the Association since the adoption of the new regulations in 1918 had brought about a congestion at the head office, and in 1923 it was decided that a reorganization of the Association's activities was necessary. Under the presidency of Mr. Clark whose long connection with the service of seed improvement particularly fitted him for the task, this reorganization was undertaken and carried out. It consisted in a partial decentralization of the inspection and other services hitherto conducted from the headquarters of the Association and a realignment of duties as between the Association and the Seed Branch of the Department of Agriculture. The basis of the readjustment was the Seeds Act of 1923. One enactment of this Act was that the former voluntary grades of seeds consisting of kinds, varieties and selections approved by the Association, were incorporated as legal grades in Dominion law. This placed the inspectors of the Seed Branch at



DONALD MCVICAR
*Portage La Prairie,
Man.*



W. H. MCGREGOR
Central Lot 16, P.E.I.

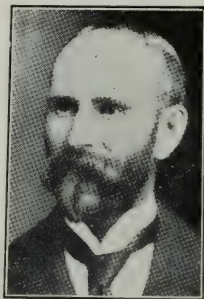
the disposal of the Association and the field and seed inspection is now done by some thirty trained officials applying uniform standards. The Seed Branch in carrying out its inspection service has divided the country into six districts administered by as many district inspectors. The new arrangement therefore gives the seed grower ready service from six different points instead of from one as formerly.

PROVINCIAL SEED BOARDS

As a part of the process of decentralization, Advisory Seed Boards have been established by the provinces, making the work and the responsibilities of the Association more fully interprovincial in scope and character than formerly. They work in co-operation with the Association and among other things, make recommendations as to the kinds and varieties of field and garden crops which they consider should be approved for registration. Since the personnel of these Boards includes many of the exceptionally skilled plant breeders who produce a large part of the Elite Stock Seed, their knowledge and experience are brought to the assistance of the Association. In some of the provinces they have already undertaken the co-operative marketing of seeds through the organization of central cleaning plants.

CO-OPERATIVE MARKETING

In reorganizing the work of the Association the development of a more satisfactory seed distributing service for the products of seed growers was taken into consideration. The Association does not conduct a regular seed merchandizing business itself but it promotes this phase of the work by encouraging co-operative seed marketing. Several associations have already been organized, including the Saskatchewan Registered Seed Association Ltd., the Alberta Seed Growers' Association, the Grimm Al-



T. G. RAYNOR, Esq.,
*Dominion Seed Branch,
Ottawa, Ont.*



PROF. F. W. BRODERICK
Manitoba Agricultural College, Winnipeg, Man.

falfa Seed Growers Association, of Alberta Ltd., the Solsgirth Seed Oat Growers' Association Ltd., the Kemptville Seed Barley Growers Association, and the Fredericton District Seed Growers' Association. They operate central cleaning plants to which the growers send their seed to be cleaned, graded, stored and distributed. As further assistance toward disposal of the products of its members, the Association publishes and distributes, early each year, a detailed report of crop registration. A great amount of publicity work is also carried on both in Canada and abroad.

PRESENT STATUS OF THE ASSOCIATION

As a result of this re-organization the status of the Canadian Seed Growers' Association Inc., and its relationship with other crop improvement agencies, are now well defined. It is a national organization of farmers who specialize in the production of high class seeds of different farm and garden crops. They multiply for commerce the "Elite Stock Seed" produced by Dominion and Provincial Experimental Stations and sometimes by private growers. The head office, at Ottawa gives effect to the policy of the Association and administers its regulations; it acts as a crop registration bureau; maintains systematic individual records of crop history and pedigree; publishes annually, reports of seed crop registration and general operations; conducts such additional publicity as appears requisite from time to time; and serves when required by members as a wholesale seed marketing agency. It determines, by reference to Provincial Seed Boards, and the Dominion Appeal Board, the kinds and varieties of agricultural and garden crops that may be eligible for registration.



WILL C. BARRIE
Galt, Ont.

VARIETIES ACCEPTABLE FOR REGISTRATION,
APRIL 1st, 1926

CEREAL CROPS

SPRING WHEAT	Early Red Fife, Marquis, Red Fife, Ruby, Kitchener, White Russian, Huron, Mindum.
OATS	Alaska, Abundance, Banner, Gold Rain, O.A.C. No. 3, O.A.C. No. 72, Victory, O.A.C. No. 144.
BARLEY	Bark's, Canadian Thorpe, Hannchen, O.A.C. No. 21. Manchurian, French Chevalier, White Hulless, Success, Charlottetown No. 80.
WINTER WHEAT	Dawson's Golden Chaff, O.A.C. No. 104, Kharkov 22 M.C.
PEAS	Arthur, Mackay, Golden Vine, Prussian Blue, Maple.
SPRING RYE	Prolific.
WINTER RYE	Dakold, N.D. 959.
FLAX	Crown, Ottawa Longstem No. 52, Premost.

FORAGE CROPS

ALFALFA	"Grimm" which traces its origin to Carver County, Minn., "Ontario Variegated" which traces its origin to a field known to have withstood successfully at least twenty winters.
CORN	Salzer's North Dakota, Wisconsin No. 7, North Western Dent, Quebec No. 28, Longfellow, Bailey, Leaming, White Cap Yellow Dent, Golden Bantam, Compton's Early, Essex Dent.
SWEET CLOVER	Arctic.
GRASSES	Brome Grass, Superior.
SOY BEANS	O.A.C. No. 211.

VARIETIES ACCEPTABLE FOR REGIS. (*Continued*)

MANGELS

Long,—Mammoth Long Red.
 Half Long,—Half Sugar White.
 Intermediate,—Yellow Intermediate,
 Yellow Leviathan (O.A.C. No. 2.)
 Ovoid,—Yellow Ovoid.
 Globe,—Yellow Globe.

SWEDES

Perfect Model, Canadian Gem, Bangholm-8312 or Disease resistant.
 Up to date (Suttons), Ditmars Bronze Top.

GARDEN VEGETABLE CROPS

Asparagus		Mary Washington
Beans	Bush Wax	Round Pod Kidney Wax
		Golden Wax (Flat Pod)
		Stringless Kidney
		Stringless Green Pod
	Bush Green	Bountiful
		Stringless Refugee
		Golden Cluster
	Pole Wax	Kentucky Wonder
	Green	Burpee Improved Bush
	Lima	Long Pod
	Broad	Broad Windsor
Beets		Early Flat Egyptian
Cabbage	White	Detroit Dark Red
		Golden Acre (Early Jersey Wakefield)
		Copenhagen Market
	Savoy	Danish Ballhead (Short stem)
		Green Globe
Carrot	Red	Mammoth Rock Red
Corn		Chantenay, Danvers Half Long
		Pickaninny, Golden Bantam
		Early Malcolm
		Mammoth White
		Stowell Evergreen
Cucumber		Cory
		Davis Perfect
		Early Fortune
		Improved Long Green
		Snow Pickling

GARDEN VEGETABLE CROPS (*Continued*)

Lettuce	Curled crisp	Grand Rapids
	nonheading	
	Curl crisp	Iceberg
	heading	
		Hanson (Non Pareil)
		New York
Musk Melon	Cos	Paris White Cos
		Early Orange
		Hearts of Gold (Imp. Hoodoo)
Onion	Red	Early Flat Red
		Red Wethersfield
		Southport Red Globe
	White	Southport White Globe
		White Portugal
	Yellow	Yellow Globe Danvers
		Southport Yellow Globe
		Prize Taker (Denia)
Parsnip		Large Yellow Dutch (Strasburg)
Peas		Hollow Crown
	Early Round	Alaska
		Seeded
		Laxton Superb
	Early	Blue Bantam (Thomas Laxton)
	Wrinkled	
	Second Early	Daisy (Dwarf Telephone)
		Lincoln (Homesteader)
	Main Crop	Stratagem (Telephone)
		Harris Earliest
Pepper		Hamilton Market
Pumpkin		Pie
Radish	Turnip	Scarlet Turnip white tip
		Early Scarlet Globe
	Long White	Icicle
	Winter	China Rose
Squash	Winter	Boston Marrow
		Warty Hubbard
		King of Denmark
Spinach		
Tomato	Early	Earliana
	Main Crop	John Baer
		Bonny Best
	Pink	Livingston Globe
Vegetable		Vegetable Marrow
	Marrow	(White Trailing)



T. H. ESTABROOKS,
Oromocto, N.B.

GRADES

Under the provisions of the new Seeds Act, 1923, commerce in seeds in Canada is conducted on a basis of legally defined grades. The quality of seed sold must conform to prescribed grade definitions. The grades "Registered" and "Extra No. 1" are assigned only to seed having a varietal purity of 99.9% in the case of self-fertilizing crops. In seed grain there must be absolute freedom from noxious weed seeds and little or no impurities of any kind. Depending on the kind of seed, "Registered" grade calls for a minimum germination of from 90 to

95 per cent, and "Extra No. 1" from 85 to 95 per cent. The Canadian Seed Growers' Association concerns itself with these two grades only. Its certificates of registration are issued only to cover seed crops that have been found on inspection to be up to the required standards. Any lot of seed presented for registration to a seed inspector must be accompanied by a declaration that it is entirely the product of a registered crop. No lot is finally passed upon until a sample has been examined for purity, tested for germination and approved by a seed inspector.

PRESENT WORK OF THE ASSOCIATION

The reorganization of the Association which became effective on October 1, 1923, has given very satisfactory results. The work of the Association has been considerably expanded and the effect of this is shown in greater acreages of registered crops and increased quantities of registered seed. Certificates of crop registration were issued for the following acreages and estimated yields of Registered and Extra No. 1. Seed in the crops of 1925:

Wheat	19,188 acres	500,700 bushels
Oats	10,752 "	412,572 "
Barley	1,219 "	45,390 "
Corn	291 "	16,830 "



C. F. BAILEY,
*Dom. Experimental Farm,
Fredericton, N.B.*



G. H. CUTLER,

*University of Wisconsin,
Madison, Wis.*

Flax	297 acres	3,532 bushels
Peas	72 "	2,200 "
Soy Beans	15 "	410 "
Rye	8 "	200 "
Alfalfa	2,461 "	303,570 lbs.
Sweet Clover	106 "	28,800 "
Swede Turnips	$\frac{1}{2}$ "	400 "

These figures show very substantial increases over previous years in the production of high class seed. There has recently been an especially marked increase in the acreage devoted to alfalfa seed, and this is reflected in the increased production of this valuable fodder crop throughout Canada.

Good progress is being made in the production of garden vegetable and field root seed for registration, and the future of this phase of the work is particularly favourable as Canada's imports of these seeds is at present very heavy. Fine strains of malting barley have been isolated and multiplied and the malting plants in the country furnish a steady demand for large quantities of this seed. It is of course in the production of registered wheat and oats that the work of the Association is most marked and extensive. The "Banner" variety of oats is one of the most extensively grown in this country. Its multiplication and general cultivation has been due largely to the encouragement given to this variety through the medium of the Association. It is now popular throughout the greater part of Canada and has excited the attention of growers in other countries. Other fine varieties are coming to the front. Canadian wheat is known throughout the world and no small part of its excellence and the esteem in which it is held is due to the Canadian Seed Growers' Association.

ACHIEVEMENTS OF SEED GROWERS

The results of the work of the Association are nowhere more clearly seen than in the successes of its members at National and International Exhibitions. Since 1911,



CECIL TICE,
*Dept. of Agriculture,
Victoria, B.C.*



W. B. FERGUSON
Strathroy, Ont.



GEO. G. DOW
Gilbert Plains, Man.

Canadian Seed Growers have taken the world's championship for wheat thirteen times. In 1923 they won ninety-two prizes, at the International Grain and Hay Show at Chicago. At the same show in 1924 they secured one hundred and twenty-two awards, including the highest prizes for wheat, alfalfa, flax and flint corn. The winning of these prizes has not only been a series of personal triumphs for the growers themselves and for the Canadian Seed Growers' Association but it is a national achievement of which the Dominion of Canada is justly proud.



G. M. STEWART,
*Dominion Seed Branch,
Calgary, Alta.*



GEO. BATHO
*Manitoba Dept. of Agriculture,
Winnipeg, Man.*

INTERNATIONAL CHAMPIONSHIP WINNERS

Because of the great stimulus given to the advancement of high-class seed production by Canadian seed growers who have carried off high awards in International Competition, it is but fitting that their names should be mentioned in this record along with a statement of their achievement:

Year	Exhibition	Class	Winner
1911—	New York Land Show, N.Y.	Wheat, (threshed)	Seager Wheeler, Rosthern, Sask.
1912—	International Dry Farming Congress, Lethbridge, Alta.	Wheat, (sheaf)	R. H. Carter, Fort Qu'Appelle, Sask.
"	—International Corn Show, South Carolina.	Oats, (threshed)	J. H. Hill & Sons, Lloydminster, Sask.
"	—International Dry Farming Congress, Lethbridge, Alta.	Oats, (threshed)	J. Lanigan, Elfros, Sask.
1913—	International Dry Farming Congress, Tulsa, Okla.	Wheat, (threshed)	Paul Gerlach, Allan, Sask.
"	"	Oats, (threshed)	J. Lanigan, Elfros, Sask.
"	"	Flax, (threshed)	John Pless, Carndu, Sask.
"	"	Flax, (sheaf)	P. C. West, Kindersley, Sask.
"	"	Barley, (sheaf)	R. H. Carter, Fort Qu'Appelle, Sask.
"	"	Rye, (threshed)	W. S. Creighton, Stalwart, Sask.
"	—International Corn Show, Columbus, Ohio.	Oats, (threshed)	J. H. Hill & Sons, Lloydminster, Sask.
1914—	International Dry Farming Congress, Wichita, Kansas.	Wheat, (threshed)	Seager Wheeler, Rosthern, Sask.
"	"	Flax, (threshed)	Wm. Henley, Fort Qu'Appelle, Sask.
"	"	Rye, (threshed)	W. S. Creighton, Stalwart, Sask.
"	—International Corn Show, Dallas, Texas.	Oats, (threshed)	J. H. Hill & Sons, Lloydminster, Sask.
1915—	Dry Farming Congress and Soil Products Exposition, Denver Colorado.	Wheat, (threshed)	Seager Wheeler, Rosthern, Sask.
"	"	Wheat, (sheaf)	"
"	"	Oats, (sheaf)	"
"	"	Brome Grass, (sheaf)	"

Year	Exhibition	Class	Winner
1916	International Soil Products and Farm Congress, El Paso, Texas.	Wheat, (threshed)	Seager Wheeler, Rosthern, Sask.
"	"	Barley, (threshed)	"
"	"	Rye, (threshed)	J. T. How, Regina, Sask.
1917	International Soil Products Exposition, Peoria, Ill.	Wheat, (threshed) (Dry Farming Section)	J. S. Fields, Regina, Sask.
"	"	Wheat, (threshed) (open)	S. Larcombe, Birtle, Man.
1918	International Soil Products Exposition, Kansas City, Mo.	Wheat, (threshed) (open)	Seager Wheeler, Rosthern, Sask.
"	"	Wheat, (threshed) (Dry Farming Section)	S. Larcombe, Birtle, Man.
1919	International Grain and Hay Show, Chicago, Ill.	Wheat	J. C. Mitchell, Dahinda, Sask.
"	"	Oats,	J. S. Fields, Regina, Sask.
1920	"	Wheat,	J. C. Mitchell, Dahinda, Sask.
"	"	Oats,	J. W. Lucas, Cayley, Alta.
"	"	Field Peas,	E. W. Buckingham, Claresholm, Alta.
1921	"	Oats,	J. W. Lucas, Cayley, Alta.
"	"	Alfalfa,	Grafton and McNaughton, Brooks, Alta.
1922	"	Wheat,	R. O. Wyler, Luseland, Sask.
"	"	Oats,	J. W. Biglands, Lacombe, Alta.
"	"	Field Peas,	J. T. Hill, Lloydminster, Alta.
"	"	Rye, (Winter)	J. W. Lucas, Cayley, Alta.
"	"	Barley, (two-rowed)	N. Taitinger, Claresholm, Alta.
1923	"	Wheat,	H. G. L. Strange, Fenn, Alta.
"	"	Red Clover,	Nunemaker Bros., Brooks, Alta.
"	"	Field Peas,	H. G. L. Strange, Fenn, Alta.
"	"	Oats,	J. W. Biglands, Lacombe, Alta.
1924	"	Wheat,	J. C. Mitchell, Dahinda, Sask.
"	"	Alfalfa,	Nick Chjelte, Brooks, Alta.
"	"	Field Peas,	J. T. Hill, Lloydminster, Alta.
"	"	Corn (Dent)	Blake Cohoe, Woodside, Ont.
"	"	Flax,	J. W. Brouatch, Moose Jaw, Sask.



W. J. STEPHEN,
*Dept. of Agriculture,
Edmonton, Alta.*



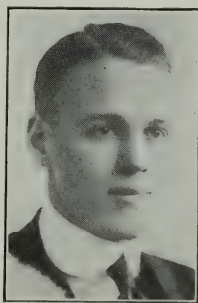
E. K. HAMPSON,
*Kemptville Agri. School,
Kemptville, Ont.*

THE FUTURE

The Canadian Seed Growers' Association is doing a work that is vital to our agriculture. Without its service many of the fine results of the work of our plant breeders would be lost or only partially perpetuated. It has been an important factor in improving the seeds used in the production of our many crops. Continued improvement is absolutely necessary if the quality and quantity of our agricultural production is to be maintained and in this work the Association will have a place so long as fields are sown and harvests are reaped.



MANLEY CHAMPLIN,
*Univer. of Saskatchewan,
Saskatoon, Sask.*



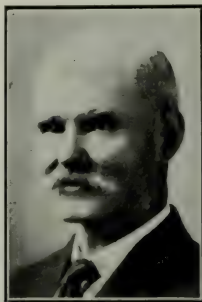
H. C. GRANT,
*Manitoba Agricul. College,
Winnipeg, Man.*



C. D. MCFARLAND,
Canada Malting Company,
Montreal, P.Q.



J. E. BLAKEMAN,
Dominion Seed Branch,
Winnipeg, Man.



WALTER STEEL
Hall's Harbour, N.S.

COLUMBIA

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